**Arun Baby**

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**Summary**

* Specializing in design and quality assurance with a focus on the manufacturing industry with more than 3 years of experience and a Certified Six Sigma Green Belt (CSSGB)
* Proficient in data analysis using Minitab, MATLAB and Python
* Well versed in ISO 9001: 2015, ISO/TS 16949 and AS9100 Quality Management Systems
* Excellent understanding of Lean and Six Sigma tools and passionate about implementing Lean Manufacturing philosophy in achieving waste reduction and improving process flow

**Work Experience**

**Ryerson University** Toronto, ON

**Research Assistant** Sept 2019 – May 2020

* Implemented continuous improvement, performed statistical (DOE) and reliability analysis of subsystems to ensure satisfactory end product performance using software like Minitab
* Performed multi-disciplinary research including design of aircraft lighting systems (using Solidworks & CATIA V5), image processing and human perception for enhancing passenger comfort using AI

**Test Center Examiner (Administration)**Sept 2018 – May 2020

* Facilitated access to education for students living with disabilities using advanced technology while working as part of a dedicated team of 70+ fellow professionals
* Managed confidential information and ensured fair opportunities for students with disabilities
* Liaised between academic staff and administration on a daily basis to ensure smooth operations

**Ryerson University & Bombardier Aerospace** Downsview Park, ON

**Graduate Researcher** Sept 2018 – Sept 2019

* Developed an entire neural network from scratch to categorize large image data sets for facial identification to be used to automate and reduce workload of cabin crew members using MATLAB, Python, Keras and Tensorflow
* Gained hands-on experience in aircraft interior systems and their manufacturing techniques
* Ensured that the designs of the project moved into prototype stage and eventually was manufacturable. This included quality assurance and methods engineering.

**Honda of Canada Manufacturing** Alliston, ON

**Parts Auditor** Nov 2017-Dec 2017

* Employed statistical process controls (SPC) techniques and metrological testing to enforce quality control and to ascertain products are within specification
* Conducted routine audit of raw material supplies and production line output of 500+ automotive parts everyday inside a high-volume manufacturing facility
* Performed Measurement System Analysis (MSA) and equipment calibration everyday

**Quality Assurance Inspector (Co-op)** Aug 2017-Nov 2017

* Put lean manufacturing philosophy to practice to achieve waste reduction and employed advanced quality tools like Kaizen, 5S and 5-Why techniques to ensure on-time operations
* Performed receiving inspection and acceptance sampling operations

**Indian Space Research Organization**Kerala, India

**Student Intern (Quality and Testing)** Aug 2016-Dec 2016

* Developed and maintained detailed documentation (FMEA) of mission-critical subsystem
* Supported senior engineers in testing, maintenance and statistical process control of equipment
* Developed fault-tree analysis and assisted in reliability estimations of subsystems for booster rockets

**Education**

**Master’s in Engineering – Aerospace/ Mechanical Engineering**

*Ryerson University |Toronto Status: Graduated in 2019*

*Program Highlights:* Reliability engineering, Advanced statistics, Advanced Manufacturing and Systems Integration

**Ontario College Graduate Certificate in Quality Assurance - Manufacturing & Management**

*Sheridan College | Brampton Status: Graduated in 2017*

*Program Highlights:* Engineering Statistics, Design of Experiments, Lean and Six Sigma, Statistical Process Control, Quality Planning, ISO Standards, Quality Audit, Instrumentation and Process Control, Total Quality Management, GD&T

**Bachelor’s Degree in Mechanical/Aeronautical Engineering**

*University of Calicut | India Status: Graduated in 2016*

*Program Highlights:* Propulsion, Aerodynamics, Electrical systems, Structures, Metallurgy and Material Sciences, Computational Fluid Dynamics, Control Engineering

**Projects**

**Intelligent Lighting Control for Aircraft Cabin Using Neural Networks Based on Human Perception (2019)**

Developed a robust passenger identification system to control zone lighting onboard business jets based on the Bombardier Global 7500.

**Design of a Composite Helicopter Rotor Manufacturing Assembly (2018)**

Designed a comprehensive composite main rotor blade manufacturing assembly, including the tooling, plant layout and process flow.

**ISO 9001:2008 to ISO 9001:2015 Transition (2017)**

Created a Quality Manual, Vision, Mission, Quality objectives, Forms and Procedures of an organization to assist it in its transition from ISO 9001: 2008 to ISO 9001: 2015.

**Certifications & Professional Memberships**

* **Engineer-in-Training (EIT)** *-* Professional Engineers Ontario (PEO)
* **Certified Six Sigma Green Belt (CSSGB)**
* **Certified Process Quality Analyst (CPQA**) – American Society for Quality (ASQ) – *in progress*